

# NACELLE - POWER PLANT - PIPE ASSEMBLY, OIL TANK SCUPPER DRAIN - REPLACEMENT OF CATEGORY CODE 7 - MOD.NAC-71-0047

#### 1. Planning Information

#### A. Effectivity

(1) Airplane: Airbus A320

(2) Nacelle: V2500-A1 Nacelles

(a) Engine Buildup Units

The intent of this Service Bulletin was incorporated at the manufacturer on Engine Buildup Units (EBU) Serial No. 117 and on.

#### B. Reason

(1) Condition

It is not possible to install the 740-5704-505 oil-tank, scupper-drain pipe assembly with the new oil tank.

(2) Background

IAE installed a new oil tank which included a reshaped scupper drain with a larger diameter outlet in a new position. The position of the oil fill and overflow connectors was also changed. Thus, the 740-5704-505 pipe assembly was not satisfactory for installation with the new oil tank.

The new 740-5673-501 pipe assembly was made for installation with the new oil tank. This pipe is now routed behind the oil fill and overflow connectors to give better access to them.

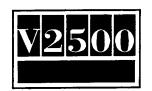
(3) Objective

To provide a drain pipe which is compatible with the repositioned scupper drain introduced with a more accessible filler port.

(4) Substantiation

It has been shown that the new 740-5673-501 pipe assembly is satisfactory for installation with the new oil tank.

(5) Impact of Bulletin on:



## SERVICE BULLETIN

Removal/Installation
Disassembly/Assembly
Cleaning
Inspection/Check
Repair
Testing

Not affected Not affected Not affected Not affected Not affected

(6) Supplemental Information

Reference V2500-ENG-79-0014

#### C. <u>Description</u>

- (1) The change introduced by this Bulletin is as follows:
  - (a) The 740-5704-505 oil-tank scupper-drain pipe assembly is replaced by the 740-5673-501 pipe assembly. The MS21902-6S union and the MS28778-06 0-ring at the oil tank interface are replaced by the 740-5678-501 reducing union and the AS43003-907 0-ring.

These changes will give a satisfactory oil tank scupper drain system when the new oil tank is installed.

(2) For relationship with other Service Bulletins, refer to paragraph 1.K. References.

#### D. Approval

The technical content of this Service Bulletin is covered by an Airbus Modification which is under DGAC (Direction Generale de l'Aviation Civile - France) approval.

#### E. Compliance

Category Code 7

Accomplish when supply of superseded parts has been depleted.

#### F. Manpower

Estimated manhours to incorporate the full intent of this Bulletin:

VENUE ESTIMATED MANHOURS
----(1) In Service

(a) To embody......1.6 M/HRS.



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TOTAL 1.6 M/HRS.

G. <u>Material Cost and Availability</u>

Parts are currently available. Refer to paragraph 3 for cost information.

H. Tooling Cost and Availability

None required.

I. Weight and Balance

(1) Weight Change..... None

(2) Moment Arm..... No effect

(3) Datum..... Engine Front Mount Centerline ..... (Powerpplant Station ..... PPS 100.00)

J. Electrical Load Data

Not affected

#### K. References

(1) Internal Reference No.

87VF050/A/B

(2) Other References

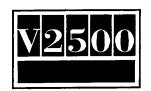
V2500 Aircraft Maintenance Manual 71-13-00 70-30-00 70-23-11 70-40-11

Service Bulletin V2500\_ENG-79-0014

#### L. Other Publications Affected

V2500 Illustrated Parts Catalog 71-73-48

NOTE: Service Bulletin No. V2500-ENG-79-0014 must be done concurrently with this Service Bulletin.



#### 2. Accomplishment Instructions

- A. Rework Instructions Not required
- B. Fitment Instructions

WARNING: DO NOT LET ENGINE OIL STAY ON YOUR SKIN FOR A LONG TIME.
THE OIL IS POISONOUS AND CAN GO THROUGH YOUR SKIN AND INTO
YOUR BODY.

WARNING: DO NOT TOUCH THE ENGINE COMPONENTS UNTIL THEY ARE COOL. THE ENGINE COMPONENTS STAY HOT FOR SOME TIME AFTER THE ENGINE IS

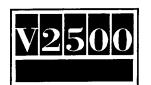
SHUTDOWN AND CAN CAUSE INJURY.

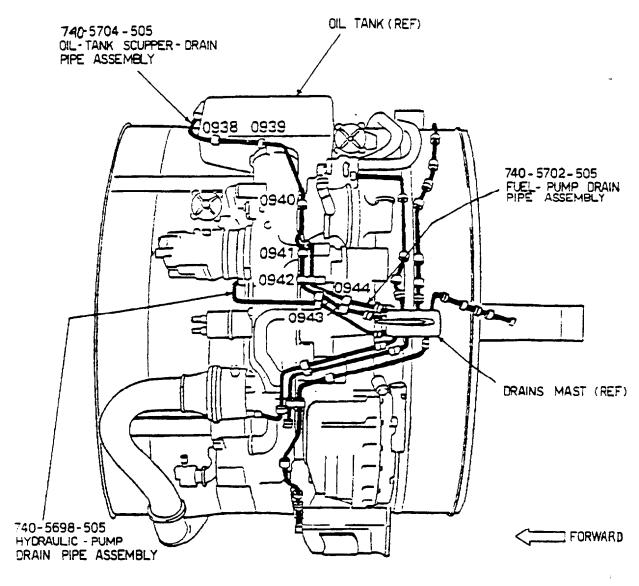
WARNING: DO NOT LET ENGINE OIL FALL ON THE ENGINE. UNWANTED OIL MUST BE REMOVED IMMEDIATELY BECAUSE THE OIL CAN CAUSE DAMAGE TO THE SURFACE PROTECTION AND TO SOME PARTS.

- (1) Find the 740-5704-505 oil-tank, scupper-drain pipe assembly which goes from the oil tank to the drains mast. (Refer to Figure 1.)
- (2) Remove the seven clipping points which told the 740-5704-505 pipe assembly as follows: (refer to Figures 1, 2, and 3.)

Note: Keep all the item removed in paragraph 2.A. (3). They will be used again when the new oil-tank scupper-drain pipe assembly is installed.

- (a) Find clipping point 0938. Remove the AS21407 bolt which attaches the 400WSS-6 'P' clip to the 740-5641-503 bracket. Remove the 'P' clip from the 740-5704-505 pipe assembly.
- (b) Find clipping point 0939. Remove the AS21408 bolt which attaches the 400WSS-6 'P' clip to the 740-5641-503 bracket. Remove the 'P' clip from the 740-5704-505 pipe assembly.
- (c) Find clipping point 0940. Remove the AS21408 bolt which attaches the 400WSS-6 'P' clip to the 740-5639-505 bracket. Remove the 'P' clip from the 740-5704-505 pipe assembly.



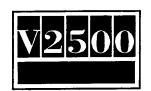


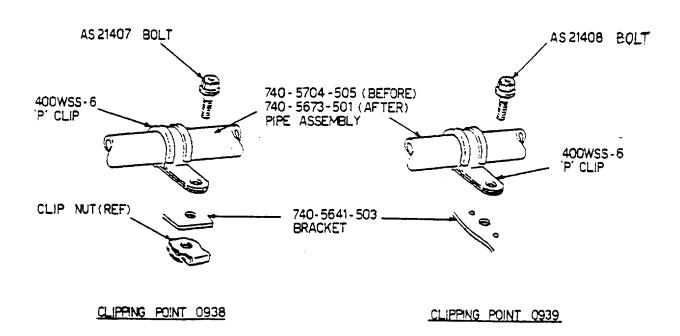
VIEW ON BOTTOM OF ENGINE

Location of Oil Tank Scupper Drain Pipe Assembly and Its Clipping Points Fig.1  $\,$ 

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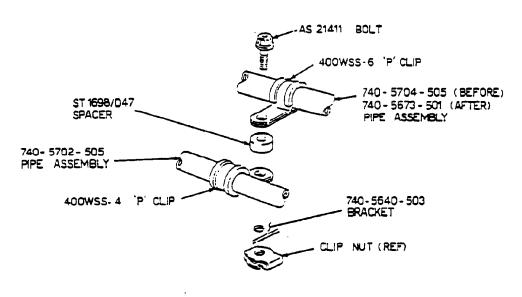




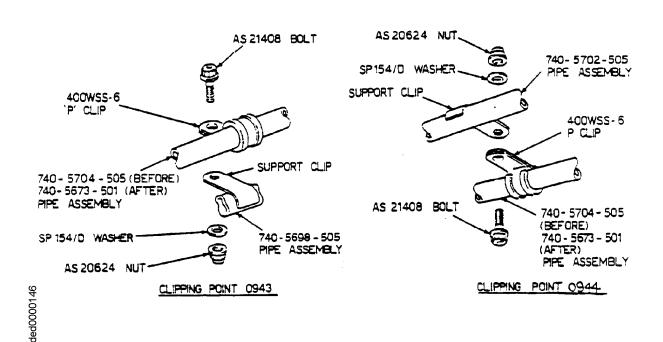
AS 21408 BOLT AS 20624 NUT 740-5704-505 (BEFORE) 740-5673-501 (AFTER) SP 154/D WASHER PIPE ASSEMBLY SUPPORT CLIP 400W\$\$-6 P' CLIP FIREWIRE 400WSS-8 SUPPORT TUBE CLIP 740 - 5639 - 505 AS 21408 BOLT BRACKET ded0000145 CLIPPING POINT 0940 CLIPPING POINT 0941

Removal/Installation of Clipping Points 0938 thru 0941 Fig.2

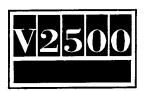




CLIPPING POINT 0942

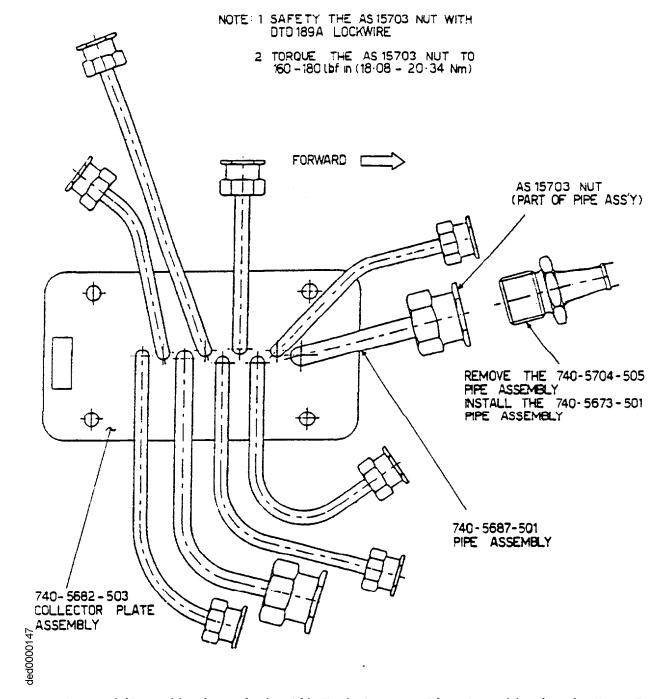


Removal/Installation of Clipping Points 0942, 0943, and 0944 Fig.3



- (d) Find clipping point 0941. Remove the AS21408 bolt, the SP154-D washer and the AS20624 nut. These attach the 400WSS-8 'P' clip to the support clip on the 740-5704-505 pipe assembly. Let the 'P'clip stay on the firewire support tube.
- (e) Find clipping point 0942. Remove the AS21411 bolt which attaches the 400WSS-6 and the 400WSS-4 'P' clip to the 740-5640-503 bracket. Remove the ST1698-D47 spacer. Remove the 400WSS-6 'P' from the 740-5704-505 pipe assembly. Let the 400WSS-4 'P' clip stay on the 740-5702-505 fuel-pump-drain pipe assembly.
- (f) Find clipping point 0943. Remove the AS21408 bolt, the SP154-D washer, and the AS20624 nut. These attach the 400WSS-6 'P' clip to the support clip on the 740-5698-505 hydraulic-pump-drain pipe assembly. Remove the 'P' clip from the 740-5704-505 pipe assembly.
- (g) Find clipping point 0944. Remove the AS21408 bolt, the SP154-D washer, and the AS20624 nut. These attach the 400WSS-6 'P' clip to the support clip on the 740-5702-505 pipe assembly. Remove the 'P' clip from the 740-5704-505 pipe assembly.
- (3) Remove the 740-5704-505 pipe assembly as follows:
  - (a) Remove the lockwire from the end couplings of the pipe assembly. Discard the lockwire.
  - (b) Loosen the AS15703 nut which connects the 740-5704-505 pipe assembly to the 740-5687-501 pipe assembly at the drains mast end. (The 740-5687-501 pipe assembly is part of the 740-5682-503 collector plate assembly.) (Refer to Figure 4.)
  - (c) Loosen the MS21921-6S nut which connects the 740-5704-505 pipe assembly to the MS21902-6S union at the oil tank. (Refer to Figure 5.)
  - (d) Remove the 740-5704-505 pipe assembly. Discard the pipe assembly.

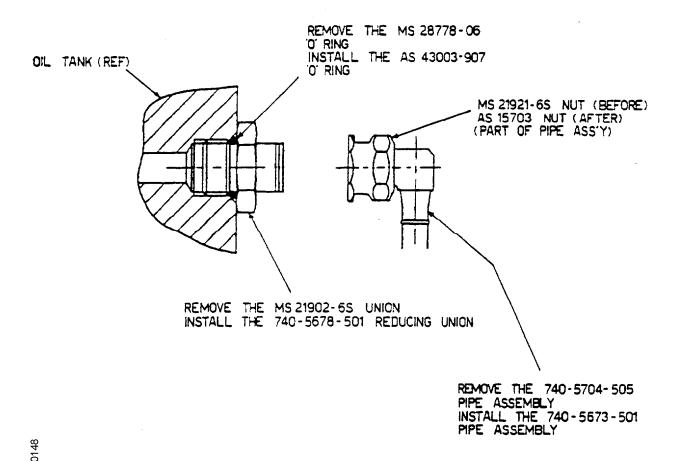




Removal/Installation of the Oil Tank Scupper Pipe Assembly (Drain Mast End) Fig.4



- 1 SAFETY THE AS15703 NUT WITH DTD 189A LOCKWIRE
- 2 TORQUE THE AS15703 NUT TO 160 1801 bf in (18-08 20-34 Nm)
- 3 TORQUE THE 740-5678-501 UNION TO 215-245Lbf in (24-295-27-685 Nm)



Removal/Installation of the Oil Tank Scupper Pipe Assembly (Oil Tank End) Fig.5

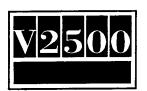


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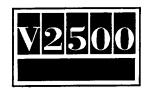
- (4) Replace the union at the oil tank interface as follows: (Refer to Figure 5.)
  - (a) Remove the MS21902-6S union from the oil tank. Discard the the union and the MS28778-02 O-ring.
  - (b) Lubricate the new AS43003-907 0-ring with Co Mat V10-039 engine oil. (Refer to the V2500 Aircraft Maintenance Manual, Section 70-30-00.) Put the 0-ring on the small diameter end of the 740-5678-501 reducing union.

Note: The small diameter end goes into the oil tank.

- (c) Install the 740-5678-501 reducing union in the new oil tank.
- (d) Torque the reducing union to 215-245 lb-in. (24.295-27.685 N.m) as specified in the V2500 Aircraft Maintenance Manual, Task 70-23-11-911-010.
- (5) Install the 740-5673-501 pipe assembly as follows:
  - (a) Set the 740-5673-501 pipe assembly in position.
  - (b) Connect the 740-5673-501 pipe assembly to the 740-5678-501 reducing union at the oil tank. Hand tighten the AS15703 nut to the reducing union. (Refer to Figure 5.)
  - (c) Connect the 740-5673-501 pipe assembly to the 740-5687-501 pipe assembly at the drains mast. Hand tighten the AS15703 nut. (Refer to Figure 4.)
  - CAUTION: HOLD THE REDUCING UNION WITH A SPANNER WRENCH WHILE THE AS15703 NUT IS TORQUED. THIS IS TO PREVENT THE REDUCING UNION FROM BEING TIGHTENED TO MORE THAN SPECIFIED TORQUE VALUE.
  - (d) Torque the AS15703 nuts at each end of the pipe assembly to 160-180 lb-in. (18.08-20.34 N.m) as specified in the V2500 Aircraft Maintenance Manual, Task 70-23-11-911-010.
  - (e) Safety the end couplings of the pipe assembly with DTD189A lockwire as specified in the V2500 Aircraft Maintenance Manual, Task 70-40-11-911-012.
- (6) Install the seven clipping points which will hold the 740-5673-501 pipe assembly as follows: (Refer to Figures 2 and 3.)



- (a) Put a 400WSS-6 'P' clip around the 740-5673-501 pipe assembly at the position where clipping point 0944 was. Attach this 'P' clip to the support clip on the 740-5702-505 pipe assembly. Use an AS21408 bolt, an SP154-D washer, and an AS20624 nut.
- (b) Put a 400WSS-6 'P' clip around the 740-5673-501 pipe assembly at the position where clipping point 0943 was. Attach this 'P' clip to the support clip on the 740-5698-505 pipe assembly. Use an AS21408 bolt, an SP154-D washer, and an AS20624 nut.
- (c) Put a 400WSS-6 'P' clip around the 740-5673-501 pipe assembly at the position where clipping point 0942 was. Put the ST1698-D47 spacer between this 'P' clip and the 400WSS-4 'P' clip which stayed on the 740-5702-505 pipe assembly. (Refer to paragraph 2.A.)(3)(e)). Attach these two 'P' clips to the 740-5640-503 bracket with an AS21411 bolt.
- (d) Find the 400WSS-8 'P' clip which holds the firewire support tube at the position where clipping point 0941 was. (Refer to paragraph 2.A.)(3)(d)). Attach this 'P' clip to the support clip on the 740-5673-501 pipe assembly Use an AS21408 bolt, an SP154-D washer, and an AS20624 nut.
- (e) Put a 400WSS-6 'P' clip around the 740-5673-501 pipe assembly at the position where clipping point 0940 was. Attach this 'P' clip to the 740-5639-505 bracket with an AS21408 bolt.
- (f) Put a 400WSS-6 'P' clip around the 740-5673-501 pipe assembly at the position where clipping point 0939 was. Attach this 'P' clip to the 740-5641-503 bracket with an AS21408 bolt.
- (g) Put a 400WSS-6 'P' clip around the 740-5673-501 pipe assembly at the position where clipping point 0938 was. Attach this 'P' clip to the 740-5641-505 bracket with an AS21407 bolt.
- (h) Torque the bolts at each of the seven clipping points to 40 lb-in. (4.52 N.m) as specified in the V2500 Aircraft Maintenance Manual, Task 70-23-11-911-010.
- D. Recording Instructions
  - (1) A record of accomplishment is necessary.



## 3. Material Information

(ATA NO.)	QTY	PRICE (\$)	KEYWORD	(IPC NO.)	DISPOS
NEW PN		EST'D UNIT		OLD PN	INSTR/

Applicability: For each V2500 Nacelle to incorporate this Bulletin.

A. Kits Associated with this Service Bulletin:

No Kit required.

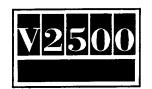
B. Parts Affected by this Service Bulletin:

740-5673-501	1	Pipe, Oil	740-5704-507	(A)(D)
(71-73-48)		Tank	(01-100)	(1D)(S1)
		Scupper Drain		
		Assembly		
740-5678-501	1	.Union,	MS21902-6S	(A)(D)
(71-73-48)		Reducing	(01-101)	(1D)(S1)
AS43003-907	1	.0-ring	MS28778-06	(A)(D)
(71-73-48)			(01-105)	(1D)(S1)

- C. <u>Instruction/Disposition Code Statements:</u>
  - (A) New part currently available for sale.
  - (D) Old part will continue to be available for sale.
  - (1D) Discard old part.
  - (2D) New part(s) coded (S1) must replace old parts coded (S) as a complete set per engine.
- D. These materials are to be procured by the Operator or obtained from his stock.

Part Number	Keyword	Qty 	Source	Vendor Code
DT189A	Lockwire	AN	British Standards Institution 2 Park Street London AW1A 2BS England	К7766





# **SERVICE BULLETIN**

(V10-039)

Engine Oil ΑN

Fiat Sezione Motori Avio A3460 312 Via Nizza 10127 Tarino Italy